

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/716,670	TOYODA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Long Nguyen	2816	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the IDS filed 5/20/04.
2. ☒ The allowed claim(s) is/are 1-6.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 20041026.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20041026</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>5/20/04</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                              | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|   | 9. <input type="checkbox"/> Other _____.   |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Alex Chan on 10/26/04.

The application has been amended as follows:

#### **In The Abstract**

In the abstract, the recitation "A ferroelectric gate device ... is applied to said ferroelectric capacitor (1)." on lines 2-21 has been changed to:

--A ferroelectric gate device which comprises a ferroelectric capacitor (1), a switching element (2) serving as a resistor or a capacitor depending on the voltage applied, and a field-effect transistor (6) having a source, a drain and a gate, said ferroelectric capacitor (1) having an input terminal (IN) at one end, the other end of said ferroelectric capacitor (1) being connected to one end of said switching element (2), the other end of said switching element (2) being connected to the gate of said field-effect transistor (6), by applying a voltage to said input terminal, said switching element (2) serving as a resistor when a voltage higher than the coercive voltage ( $V_c$ ) of a ferroelectric substance which said ferroelectric capacitor (1), and by applying a voltage to said input terminal, said switching element (2) serving as a capacitor when a voltage lower than the coercive voltage ( $V_c$ ) of said ferroelectric substance is applied to said ferroelectric capacitor (1).--

**In The Drawings**

The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Figures 10(a) and 10(b) will be labeled as --Prior Art--.

In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

**In The Specification**

In the specification, page 1, following the title of the invention, the statement --This is a continuation of copending International Application No. PCT/JP03/08951, filed July 15, 2003, which designated the United States-- has been inserted as a first sentence of the specification.

**In The Claims**

Claim 2, line 3, "if a voltage" has been changed to --if the voltage--.

Claim 2, line 4, "the coercive voltage" has been changed to --a predetermined voltage--.

Claim 2, line 7, "when a voltage" has been changed to --when the voltage--.

Claim 2, line 8, "if a voltage" has been changed to --if the voltage--.

Claim 2, line 9, "the coercive voltage" has been changed to --the predetermined voltage--.

Claim 3, line 4, "substance" has been changed to --capacitor--.

**Reasons For The Above Changes**

The abstract has been rewritten in a single paragraph to meet the proper format. No text has been changed.

Art Unit: 2816

The change in the drawings is needed to meet the requirement for "Prior Art" under MPEP § 608.02(g).

The above change to the specification has been made to meet the conditions for "Continuation" status.

The above changes to claims 2 and 3 have been made to correct the informalities and the antecedent basis so that claims 2 and 3 are clear.

### **REASONS FOR ALLOWANCE**

2. Claims 1-6 are allowed.

Claim 1 is allowed because the prior art of record fails to disclose or suggest a ferroelectric gate device, which includes a ferroelectric capacitor, a switching element and a field effect transistor with the recited connections and operations set forth therein, wherein the switching element is a zener diode.

Claims 2-6 are allowed because they depend on claim 1.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directly to Examiner Long Nguyen whose telephone number is (571) 272-1753. The Examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

Art Unit: 2816

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached at (571) 272-1740. The fax number for this group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 26, 2004



Long Nguyen  
Primary Examiner  
Art Unit: 2816